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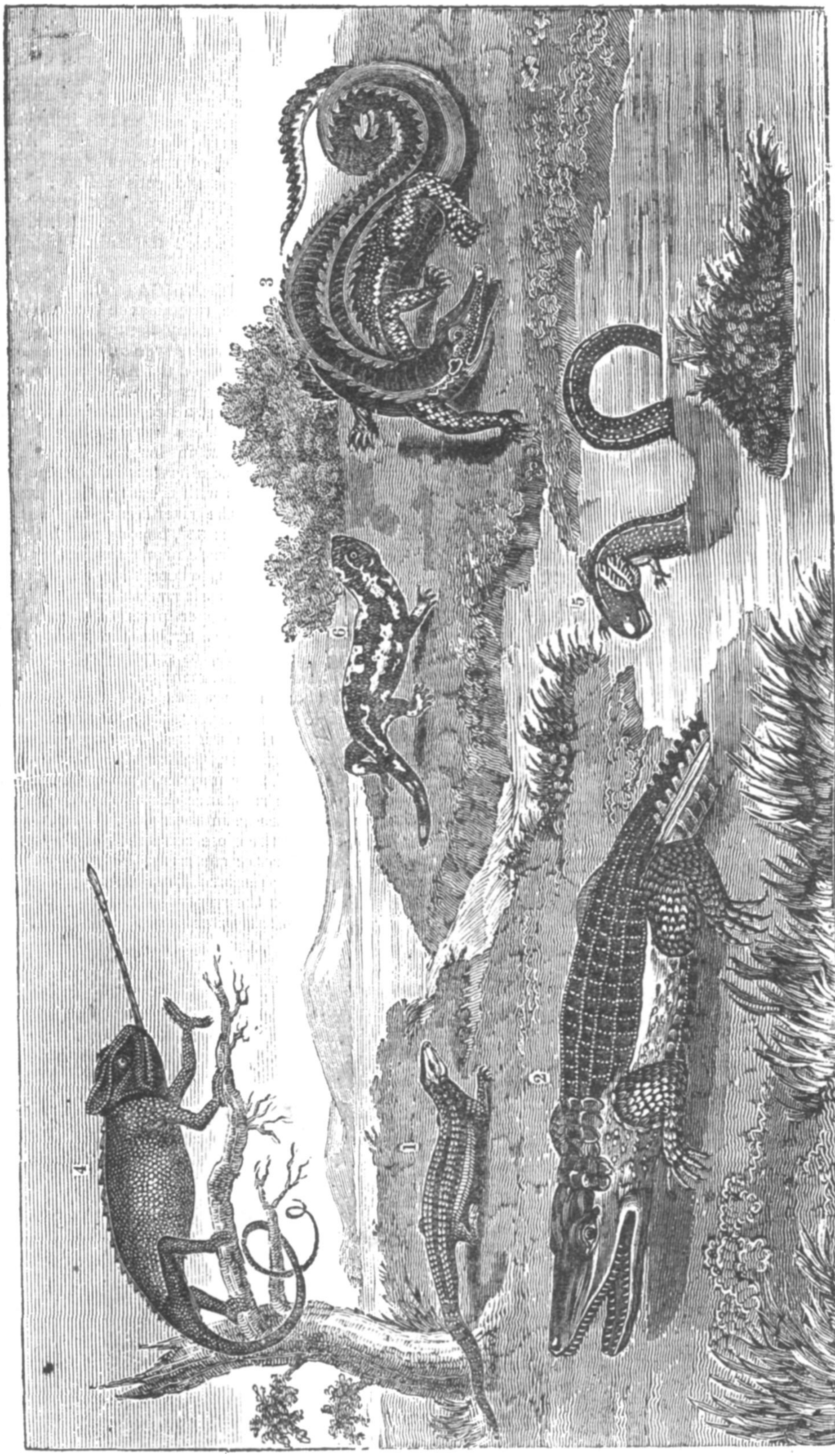
NATURAL HISTORY.



1. The Lizard. 2. The Crocodile. 3. The Aligator. 4. The Chamæleon. 5. The Siren. 6. The Salamander.

NATURAL HISTORY.

Wonderful are the works of the great Creator; and in many instances mysterious to the finite comprehension of man. For what purpose such creatures as those represented in the foregoing page, which we have copied from an engraving in the London Encyclopædia, would ever have been formed, is a question which bids defiance to the speculations of philosophy; and must remain unanswered till the veil of mortality be removed, and the light of another world be brought to bear upon the mysteries and motions of the globe we now inhabit.

The various animals represented in the engraving may be said to belong to the same class—a genus of amphibia, belonging to the order of *Reptilia.* They are, no doubt, all, *by name,* familiar to our readers. Who has not heard or read of

THE CHAMÆLEON?

> " A lizard's body, lean and long—
> A fishes head—a serpent's tongue;"

With a cylindrical, crooked tail; which can dilate and contract its size like the frog; and, if we can believe all that has been written upon it, can assume at pleasure the various colours of the rainbow. It is a native of Africa and Asia, and has been the subject of much contention among naturalists.

The head of a large chamæleon, is almost two inches long, and thence to the beginning of the tail it is four inches and a half The tail is five inches long, and the feet two and a half. The thickness of the body is different at different seasons; for sometimes from the back to the belly it is two inches, and sometimes one; for he can blow up and contract himself at pleasure. This swelling and contraction is not only of the back and belly, but also of the legs and tail. The chamæleon will continue blown up for two hours together, and then grow less and less insensibly; for the dilatation is always more quick and visible than the contraction. In this last state he appears extremely lean; the spine of the back is sharp, and all his ribs might be told; the tendons of the arms and legs might also be seen distinctly. The skin is very cold to the touch; and, notwithstanding he seems so lean, there is no feeling the beating of the heart. The surface of the skin is unequal, and has a grain not unlike shagreen, but very soft, because each eminence is as smooth as if it was polished. The head is like that of a fish, being joined to the breast by a very short neck, covered on each side with cartilaginous membranes resembling gills. There is a crest directly on the top of the head, and two others on each side above the eyes, and between these there are two cavities near the top of the head. The muzzle is blunt, like that of a frog: at the end there is a hole on each side for the nostrils; but there are no ears, nor the sign of any. The jaws are furnished with a bone in the form of teeth, of which he makes but little use, as he lives by swallowing flies and other insects without chewing them; and hence arose the vulgar notion of his living upon air, because he was never seen to eat. The form, structure, and motion of the eyes, have something very peculiar; for they are very large, being almost half an inch in diameter, of a globular figure, and stand out of the head. They have a single eye-lid like a cap, with a small hole in the middle, through which the sight of the eye appears, no bigger than a pin's head, and a shining brown, encircled by a little ring of a gold colour. But the most extraordinary thing relating to the eyes is, that this animal often moves one when the other is entirely at rest; nay, sometimes one eye will seem to look directly forward and the other backward, and one will look up to the sky when the other regards the earth. The four feet are all of equal length; but those before are turned backwards, and those behind forwards. There are five toes on each paw, which have a greater resemblance to hands than feet. They are all divided into two, which gives the appearance of two hands to each arm, and two feet to each leg; and though one of these parts has three toes, and the other but two, yet they seem to be all of the same size. These toes lie together under the skin; their shape, however, may be seen through the skin. With these paws the chamæleon can lay hold of the small branches of trees like a parrot. When he is about to perch, he parts his toes differently from birds, placing two behind and two before. The claws are little, crooked, very sharp, and of a pale yellow, proceeding but half way out of the skin, while the other half is hid beneath it. He always wraps his tail round the branches of trees, and it serves him instead of a fifth hand. Some naturalists believe the change of colour to depend upon the feelings of the animal, or upon the different degrees of heat or cold to which it is subjected. It seems similar to blushing, and is probably produced by the greater or less quantity of blood sent into the minute vessels, assisted also by the distension of their immense lungs, which, being expanded with air, render the animal nearly transparent. Previously to the chamæleon's assuming a change of colour, it makes a long inspiration, the body swelling out to twice its usual size; and, as this inflation subsides, the change of colour gradually takes place. According to D'Obsonville, the blood of the chamæleon is of a violet blue colour; the vessels and cutis yellow; the epidermis transparent: hence, he conceives, that, in consequence of more or less blood being sent to the external arteries, all the shades of colour which the animal presents may be produced.

THE ALIGATOR.

So very great is the resemblance between the aligator and the crocodile, that many naturalists suppose them to be but a variety of the same species. Others, on a closer inspection, have pronounced the American crocodile to be altogether a distinct species from the aligator of the Nile.

The alligator arrives at a size not much inferior to that of the crocodile, specimens having often been seen of eighteen or twenty feet in length. Though the largest and greatest numbers of alligators inhabit the torrid zone, the continent abounds with them ten degrees more north, particularly as far as the river Neus, in North Carolina, in the latitude of about 33°, beyond which they have not been found, which latitude nearly answers to the northernmost parts of Africa, where they are likewise found. They frequent not only salt rivers near the sea, but streams of fresh water in the upper parts of the country, and in lakes of salt and fresh water, on the banks of which they lie lurking among reeds, to surprise cattle and other animals. In Jamaica, and many parts of the continent, they are found about twenty feet in length: they cannot be more terrible in their aspect, than they are formidable and mischievous in their natures, sparing neither man nor beast they can surprise, pulling them down under water, that, being dead, they may with greater facility, and without a struggle or resistance devour them. As quadrupeds do not so often come in their way, they almost subsist on fish; and as, by the close connexion of the vertebræ, they can neither swim nor run away, but straight forward, and are consequently disabled from turning with that agility requisite to catch their prey by pursuit, therefore they do it by surprise in the water as well as by land.

THE CROCODILE.

The crocodile has a compressed jagged tail, five toes on the fore, and four on the hind feet. This is the largest animal of the genus. A young one that was dissected at Siam, an account of which was sent to the Royal Academy at Paris, was eighteen feet and a half long; the tail was no less than five feet and a half, and the head and neck above two and a half. He was four feet nine inches in circumference where thickest. The hinder legs, including the thigh and the paw, were two feet two inches long; the paws, from the joint to the extremity of the longest claws, were above nine inches. They were divided into four toes; of which three were armed with large claws, the longest of which was an inch and a half, and seven lines and a half broad at the root. The fore legs had the same parts and conformation as the arms of a man, but were somewhat shorter than those behind. The hands had five fingers, the last two of which had no nails, and were of a conical figure, like the fourth toe on the hind paws. The head was long, and had a little rising at the top; but the rest was flat, especially towards the extremity of the jaws. It was covered with a skin, which adhered firmly to the skull and jaws. The eye was very small in proportion to the rest of the body; and so placed within its orbit, that